

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application.

1. (currently amended) A compressor comprising:

5 a compressor wheel having a hub, free-ended compressor blades and being mounted for rotation on a shaft, each blade being characterized by a free-ended outer edge, an upstream leading edge and a downstream trailing edge; and

10 a shroud mounted around the outer edges of the compressor blades and defining a gas flow path between the shroud and the hub from a compressor inlet to a diffuser outlet, through which the blades rotate with respect to the shroud;

15 wherein in cross-section the shroud forms a surface along the flow path, the surface being characterized by a profile that includes a relative discontinuity in the region of the trailing edge; and

20 wherein the discontinuity forms a downstream-facing blocking face adapted to impede an upstream flow of gas between the shroud and the wheel, the blocking face extending across the gas flow path to form a sharp edge connecting the blocking face to a smoothly curving surface along the gas flow path upstream of the blocking face discontinuity.

2. (canceled)

3. (canceled)

4. (currently amended) A compressor according to claim 1, wherein the cross-section profile of the shroud surface along the flow path is further characterized by a second relative discontinuity that is in the region of the leading edge, and wherein the second relative discontinuity forms a
- 5 second-discontinuity downstream-facing blocking face adapted to impede an upstream flow of gas between the shroud and the wheel, the second-discontinuity blocking face extending across the flow path to form a second-discontinuity sharp edge connecting the second blocking face to a second-discontinuity smooth surface upstream of the second-discontinuity
- 10 blocking face.
5. (original) A compressor according to claim 4 wherein the second discontinuity is located upstream of the leading edge of the wheel blades.
- 15 6. (previously presented) A compressor according to claim 5 wherein the second discontinuity is spaced from the leading edge of the wheel blades by a distance of the same order as the axial clearance of the trailing edge from the compressor housing.
- 20 7. (canceled)
8. (canceled)
9. (currently amended) A compressor according to claim 4, wherein the
- 25 ~~of~~ each downstream-facing blocking face comprises a planar surface cut into the curving surface.
10. (canceled)

11. (currently amended) A compressor according to claim 4, wherein the second-discontinuity downstream-facing blocking face comprises a planar surface cut into the curving surface, and wherein the planar surface is perpendicular to the axis of the shaft.

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12. (previously presented) A compressor according to any one of claims 4, 6, or 9, wherein the radial extent of the second discontinuity is of the same order as the radial clearance between the trailing edge and the housing.

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13. (currently amended) A compressor according to any one of claims 4, 6, or 9, wherein the sizes of the first and second discontinuities are closely similar.

15 14. (currently amended) A compressor according to any one of claims 4, 6 or 9, wherein the shapes of the first and second discontinuities are closely similar.

20 15. (previously presented) A turbocharger comprising a compressor according to any one of claims 1, 4, 6 or 11.

25 16. (currently amended) A compressor according to claim 1, wherein the blocking face forms a second sharp edge on an opposite side of the blocking face from the first sharp edge, the second sharp edge connecting the blocking face to a second smoothly curving surface that is downstream of the blocking face discontinuity.

17. (currently amended) A compressor according to claim 4, wherein the first-discontinuity blocking face forms a second sharp edge on an opposite side of the first-discontinuity blocking face from the first sharp edge of the first-discontinuity blocking face, the second sharp edge connecting the first-discontinuity blocking face to a second first-discontinuity smoothly curving surface downstream of the first-discontinuity blocking face ~~second discontinuity~~.
18. (previously presented) A turbocharger according to claim 1, wherein the discontinuity is in the form of a groove.